



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/656,010
Applicant : Lee M. Pike, Jr.
Filed : September 5, 2003
Title : AGE-HARDENABLE, CORROSION
: RESISTANT Ni-Cr-Mo ALLOYS

Group Art Unit : 1742
Examiner : John P. Sheehan

Docket No. : 030491

DECLARATION OF DWAIN L. KLARSTROM

I, DWAIN L. KLARSTROM, declare as follows:

I am currently employed as Director of Technology Engineering for Haynes International, Inc., the owner of all rights in the invention disclosed in this patent application.

I received B.S., M.S. and Ph.D. degrees in metallurgical engineering from the University of Wisconsin-Madison in 1965, 1966 and 1970, respectively, where my scholastic honors included membership in Tau Beta Pi, Phi Kappa Phi, Alpha Sigma Mu and Sigma Xi.

I have long been an active member of TMS/AIME and of ASM International, serving on the Energy Division Council of ASM and the Editorial Committee of ASM Journal of Materials Engineering and Performance.

I received the Dr. Rene D. Wasserman Award from the American Welding Society in 1976 for my research on brazing; a Chemical Processing Valler Award in 1986 for my development of 230[®] alloy; and was elected Fellow of ASM International in 1989.

I am an inventor in eleven United States patents directed to improved compositions for nickel base alloys and the author of many technical papers in a variety of metallurgical research areas concerned with nickel base superalloys.

I am a co-inventor in United States Patent Nos. 6,544,362; 6,610,155; 6,579,388 and 6,638,373. These patents disclose certain experimental and commercial alloys that were subjected to one step or two step aging treatments.

All of the experimental alloys disclosed in the '367, '155, '388 and '373 patents were conceived by Lee M. Pike, Jr. and made by Lee M. Pike, Jr. or made under his direction. This includes alloy N in the '362 and '388 patent and alloy 11 in the '155 and '388 patents. Consequently, Lee Pike is the sole inventor of the experimental alloys.

The claims of the '367, '155, '388 and '373 patents are directed to methods for treating nickel-chromium-molybdenum alloys having elements present within ranges set forth in the claims and related according to an equation in the claims. The claims require that the alloy be age hardened and cooled according to time and temperature ranges in the claims.

I am familiar with the above-titled application of Lee M. Pike, Jr. The invention in this application relates to an alloy composition, not a method of heat treating alloys. Although some of Mr. Pike's experimental alloys disclosed in the '367, '155, '388 and '373 patents are within the claims of the present application, other experimental alloys are outside the present claim. There is nothing in these patents or any other prior art known to me that would teach or suggest to one skilled in the art that the alloy compositions claimed in this application would not suffer, upon age hardening, a loss of corrosion resistance in either oxidizing or reducing media. Those skilled in the art would expect all alloy compositions within the ranges of the cited patents to have

similar corrosion properties. They would also expect that all such alloy compositions would suffer a loss in corrosion resistance upon age hardening.

I declare that the foregoing is true and correct, that all statements made on information and belief are believed to be true, and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any false statements may jeopardize the validity of a patent which issues from the above-identified patent application.

Date: August 30, 2004

Dwaine L. Klarstrom
DWAINE L. KLARSTROM